

In the Claims:

1. (currently amended) A method of assessing an LSD (Lysosomal storage disorder) status of an individual for one LSD the method comprising the steps of,
taking a tissue or body fluid sample from the individual,
estimating a level in the sample of each of three or more compound indicators, said indicators being indicative of the level of respectively each of three or more lipid containing storage associated compounds,
calculating an LSD index number for said one LSD using all of said compound indicators,
and comparing the LSD index number of the sample with a standard to provide an assessment of the LSD status of the individual.
2. Canceled.
3. Canceled.
4. (original) The method as in any one of claims 1 to 3 wherein the storage associated compounds are selected from the group of compounds consisting of phospholipids and glycolipids.
5. (original) The method of claim 4 wherein the glycolipids are selected from the group comprising glycerolipids, glycosphatidylinositols, glycosphingolipids.
6. (original) The method of claim 4 wherein the storage associated compounds are phospholipids and are characterised by head groups selected from the group consisting of phosphatidyl serine, phosphatidylinositol, phosphatidyl ethanolamine and sphingomyelin phosphatidyl glycerol, phosphatidyl serine, phosphatidyl inositol, phosphatidyl ethanolamine, cerebroside or a ganglioside.

7. (original) The method of claim 6 wherein the phospholipids are further characterised by the fatty acids which are selected from the group consisting of 1-palmitoyl-2-oleoyl-, 1-palmitoyl-2-linoleoyl -, 1-palmitoyl-2-arachadonyl -, 1-palmitoyl-2-docosahexanoyl.
8. (original) The method of claim 4 wherein the indicator of the level of lipid containing storage associated compound is measured by a technique selected from the group consisting of electrophoresis, chromatography, Gas chromatography, HPLC (High pressure Liquid Chromatography), Nuclear Magnetic resonance analysis, gas chromatography-mass spectrometry (GC-MS), GC linked to Fourier-transform infrared spectroscopy (FTIR), and silver ion and reversed-phase high-performance liquid chromatography (HPLC) and mass spectrometry.
9. (original) The method of claim 8 wherein the technique is mass spectrometry.
10. (original) The method of claim 9 where the mass sepectrometry is electrospray ionisation-tandem mass spectrometry (ESI-MSMS).
11. (original) The method as in claim 4 wherein at least two lipid containing storage associated compounds are selected one from a first group that increases in LSD individual and a second from a second group that decreases in levels in LSD individual and the values for the first and second compounds are combined to give an index number.
12. (previously presented) The method as in claim 4 wherein the sample is whole blood or products derived therefrom.
13. (previously presented) The method as in claim 4 wherein the samples are obtained from the group consisting of embryos, foetuses, neonatals or young infants.
14. (original) The method of claim 4 used to determine subclinical levels of the LSD before

onset of physical manifestations become apparent.

15. (original) The method of claim 4 wherein the LSD is Gaucher disease.

16. (original) The method of claim 3 to measure the severity of the LSD.

17. (currently amended) The method of ~~either~~ claim 1 ~~or~~ 3 wherein the LSD is Fabry and a first compound is selected from the group consisting of Cer (ceramide), LC (lactosyl ceramide), CTH (trihexosylceramide) and ~~the~~ a second compound is selected from the group consisting of SM (sphingomyelin) and GC (glucosylceramide).

18. (original) The method of claim 17 wherein two or more of Cer, LC and CTH is compared to SM.

19. (original) The method of claim 17 wherein two or more of Cer, LC and CTH is compared to GC.

20. (original) The method of claim 17 wherein the Cer, LC and CTH are C24:1 species.

21. (original) The method of claim 20 wherein CTH and LC (24:1) is compared to SM (C24:0).

22. (original) The method of claim 17 wherein the index is calculated according to the following calculation $(LC\ C24:1 * CTH\ C24:1) / (GC\ C24:0 * SM\ C24:0)$.

23. (currently amended) The method of ~~either~~ claim 1 ~~or~~ 3 wherein the LSD is Gaucher and two compounds are selected from the group consisting of SM, LC CTH and the third compound is selected from the group consisting of Cer and GC.

24. (original) The method of claim 23 wherein two or more of SM, LC and CTH are compared to Cer.

25. (original) The method of claim 23 wherein two or more of SM LC and CTH are compared with GC.

26. (original) The method of claim 23 wherein two or more of SM LC and CTH are compared with Cer and GC.

27. (previously presented) A method of developing a diagnostic method comprising the steps of
taking a first group of LSD samples one each from a plurality of LSD individuals affected
by one type of LSD,

taking a second group of control samples one each from a plurality of control individuals
not affected by LSD

the sample being of a tissue or body fluid of the individual
an LSD group of individuals with LSD

interrogating the first group of samples by mass spectrometry for first levels of a plurality
of indicators of respective lipid containing storage associated compounds,

interrogating the second group of samples by mass spectrometry for second levels of the
plurality of indicators of respective lipid containing storage associated compounds,

the lipid containing storage associated compounds selected from the class of compounds
consisting of the group glycolipids and phospholipids,

comparing the first levels with the second levels

identifying a first group of lipid containing storage associated compound which are shown as
having increased levels of indicators in the first LSD group compared to the control group,

identifying a second group of lipid containing storage associated compounds which are shows as
having decreased levels of indicators in the LSD group compared to the control group,

formulating a combination of three or more of the first and/or second group of indicators by

which to calculate and index number whereby to distinguish LSD samples from control samples,
and preferably

preparing a standard being a scale of index numbers reflective of the severity of the LSD.